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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS 4	MAY 10	CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS 5	MAY 11	KOREAPAT updates resume
NEWS 6	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS 7	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
NEWS 8	MAY 30	The F-Term thesaurus is now available in CA/CAplus
NEWS 9	JUN 02	The first reclassification of IPC codes now complete in INPADOC
NEWS 10	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS 11	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS 12	JUl 11	CHEMSAFE reloaded and enhanced
NEWS 13	JUl 14	FSTA enhanced with Japanese patents
NEWS 14	JUl 19	Coverage of Research Disclosure reinstated in DWPI
NEWS 15	AUG 09	INSPEC enhanced with 1898-1968 archive
NEWS 16	AUG 28	ADISCTI Reloaded and Enhanced
NEWS 17	AUG 30	CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 18	SEP 11	CA/CAplus enhanced with more pre-1907 records
NEWS 19	SEP 21	CA/CAplus fields enhanced with simultaneous left and right truncation
NEWS 20	SEP 25	CA(SM)/CAplus(SM) display of CA Lexicon enhanced
NEWS 21	SEP 25	CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 22	SEP 25	CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 23	SEP 28	CEABA-VTB classification code fields reloaded with new classification scheme

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

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 NEWS LOGIN     Welcome Banner and News Items
 NEWS IPC8      For general information regarding STN implementation of IPC 8
 NEWS X25       X.25 communication option no longer available

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* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:46:21 ON 08 OCT 2006

=> file reg
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'REGISTRY' ENTERED AT 12:46:36 ON 08 OCT 2006
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STRUCTURE FILE UPDATES:    6 OCT 2006  HIGHEST RN 909850-02-8
DICTIONARY FILE UPDATES:   6 OCT 2006  HIGHEST RN 909850-02-8

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http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10501250.str
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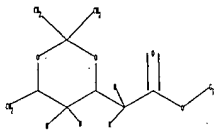

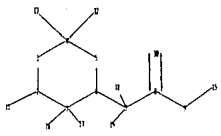

chain nodes :
7 8 9 10 11 12 13 15 16 17 18 19
ring nodes :
1 2 3 4 5 6
chain bonds :
1-16 1-17 2-11 4-12 4-13 6-7 7-8 7-18 7-19 8-9 8-10 9-15
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-10 9-15
exact bonds :
1-16 1-17 2-11 4-12 4-13 6-7 7-8 7-18 7-19

G1:Cy,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS

```
L1      STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 12:46:54 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      217 TO ITERATE

100.0% PROCESSED      217 ITERATIONS                                20 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         3457 TO     5223
PROJECTED ANSWERS:             132 TO      668

L2           20 SEA SSS SAM L1

=> s l1 ful
FULL SEARCH INITIATED 12:47:00 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     3896 TO ITERATE

100.0% PROCESSED     3896 ITERATIONS                              424 ANSWERS
SEARCH TIME: 00.00.01

L3          424 SEA SSS FUL L1

=> s l3 and (process or synthes? or make or made or prepar? or method)
            65 PROCESS
            15 PROCESSES
            80 PROCESS
                 (PROCESS OR PROCESSES)
          1963 SYNTHES?
             5 MAKE
             1 MAKES
             6 MAKE
                 (MAKE OR MAKES)
            17 MADE
           212 PREPAR?
             6 METHOD
L4           0 L3 AND (PROCESS OR SYNTHES? OR MAKE OR MADE OR PREPAR? OR
METHOD
               )

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                             197.26     197.47

FILE 'CAPLUS' ENTERED AT 12:49:25 ON 08 OCT 2006
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FILE COVERS 1907 - 8 Oct 2006 VOL 145 ISS 16
FILE LAST UPDATED: 6 Oct 2006 (20061006/ED)

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http://www.cas.org/infopolicy.html

```
=> s l3
L5         185 L3

=> s l4 and (process or synthes? or make or made or prepar? or method)
             0 L4
       2318870 PROCESS
       1574126 PROCESSES
       3460959 PROCESS
                 (PROCESS OR PROCESSES)
       1566172 SYNTHES?
        242678 MAKE
        187983 MAKES
        417542 MAKE
                 (MAKE OR MAKES)
       1235940 MADE
            26 MADES
       1235961 MADE
                 (MADE OR MADES)
       1689808 PREPAR?
        125915 PREP
          2217 PREPS
        127926 PREP
                 (PREP OR PREPS)
       2037273 PREPD
            17 PREPDS
       2037285 PREPD
                 (PREPD OR PREPDS)
        129537 PREPG
            12 PREPGS
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```
        129548 PREPG
                 (PREPG OR PREPGS)
       2748282 PREPN
        205962 PREPNS
       2903633 PREPN
                 (PREPN OR PREPNS)
       4822113 PREPAR?
                 (PREPAR? OR PREP OR PREPD OR PREPG OR PREPN)
       3220224 METHOD
       1308698 METHODS
       4160145 METHOD
                 (METHOD OR METHODS)
L6           0 L4 AND (PROCESS OR SYNTHES? OR MAKE OR MADE OR PREPAR? OR
METHOD
                )

=> s l5 and (process or synthes? or make or made or prepar? or method)
       2318870 PROCESS
       1574126 PROCESSES
       3460959 PROCESS
                 (PROCESS OR PROCESSES)
       1566172 SYNTHES?
        242678 MAKE
        187983 MAKES
        417542 MAKE
                 (MAKE OR MAKES)
       1235940 MADE
            26 MADES
       1235961 MADE
                 (MADE OR MADES)
       1689808 PREPAR?
        125915 PREP
          2217 PREPS
        127926 PREP
                 (PREP OR PREPS)
       2037273 PREPD
            17 PREPDS
       2037285 PREPD
                 (PREPD OR PREPDS)
        129537 PREPG
            12 PREPGS
        129548 PREPG
                 (PREPG OR PREPGS)
       2748282 PREPN
        205962 PREPNS
       2903633 PREPN
                 (PREPN OR PREPNS)
       4822113 PREPAR?
                 (PREPAR? OR PREP OR PREPD OR PREPG OR PREPN)
       3220224 METHOD
       1308698 METHODS
       4160145 METHOD
```

```
                (METHOD OR METHODS)
L7          180 L5 AND (PROCESS OR SYNTHES? OR MAKE OR MADE OR PREPAR? OR
METHOD
                )

=> s l7 and catalyst
         737107 CATALYST
         739685 CATALYSTS
         946271 CATALYST
                (CATALYST OR CATALYSTS)
L8           29 L7 AND CATALYST

=> s l7 and phase transfer catalyst or phase transition catalyst
        1706315 PHASE
         356162 PHASES
        1856205 PHASE
                (PHASE OR PHASES)
         789993 TRANSFER
          26222 TRANSFERS
         802718 TRANSFER
                (TRANSFER OR TRANSFERS)
         737107 CATALYST
         739685 CATALYSTS
         946271 CATALYST
                (CATALYST OR CATALYSTS)
           7933 PHASE TRANSFER CATALYST
                (PHASE(W)TRANSFER(W)CATALYST)
        1706315 PHASE
         356162 PHASES
        1856205 PHASE
                (PHASE OR PHASES)
         952386 TRANSITION
         257920 TRANSITIONS
        1063968 TRANSITION
                (TRANSITION OR TRANSITIONS)
         737107 CATALYST
         739685 CATALYSTS
         946271 CATALYST
                (CATALYST OR CATALYSTS)
             61 PHASE TRANSITION CATALYST
                (PHASE(W)TRANSITION(W)CATALYST)
L9           64 L7 AND PHASE TRANSFER CATALYST OR PHASE TRANSITION CATALYST

=> dup rem l9 l8
PROCESSING COMPLETED FOR L9
PROCESSING COMPLETED FOR L8
L10          90 DUP REM L9 L8 (3 DUPLICATES REMOVED)

=> d l10 ibib hitstr abs 1-90
```

L10 ANSWER 2 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:296026 CAPLUS
DOCUMENT NUMBER: 144:331255
TITLE: Process for the preparation of pyrrole derivative atorvastatin
INVENTOR(S): Joshi, Narendra Shriram; Bhirud, Shekhar Bhaskar; Damle, Subhash Vishwanath
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals Limited, India
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

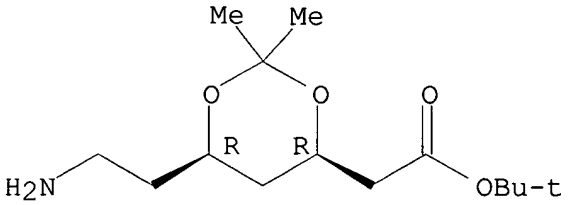
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006032959	A2	20060330	WO 2005-IB2348	20050805

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-599382P P 20040806
US 2004-599383P P 20040806

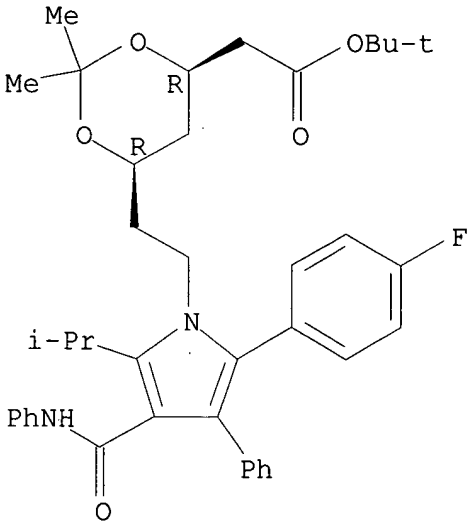
OTHER SOURCE(S): CASREACT 144:331255; MARPAT 144:331255
IT 125995-13-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation of atorvastatin)
RN 125995-13-3 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 125971-95-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(process for preparation of atorvastatin)
RN 125971-95-1 CAPLUS
CN 1,3-Dioxane-4-acetic acid,
6-[2-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]ethyl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



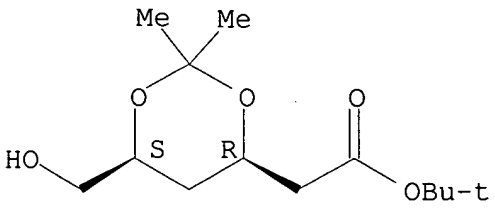
AB The invention relates to a process for the preparation of pyrroles or their pharmaceutically-acceptable salts which involves reacting an amino compound H2NCH2CH2CH(OR)CH2CH(OR)CH2CO2R1 (each R is independently H or a hydrolyzable protecting group or combine to form a hydrolyzable cyclic protecting group; R1 is H, alkyl or a cation) with a diketone R2COCHR3CHR4COR5 [R2 is 1- or 2-naphthyl, cycloalkyl, norbornenyl, (un)substituted aryl, benzyl, 2-, 3-, or 4-pyridinyl or N-oxide; R3, R4 are independently H, alkyl, cycloalkyl, (un)substituted aryl, cyano, trifluoromethyl or carbamoyl; R5 is alkyl, cycloalkyl or trifluoromethyl] in the presence of a catalyst in at least one solvent. An example describes the synthesis of atorvastatin calcium salt by treating (4R-cis)-1,1-dimethylethyl 6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxane-4-acetate with 2-[1-phenyl-2-(4-fluorophenyl)-2-oxoethyl]-4-methyl-N-phenyl-3-oxo pentanamide in heptane/THF/toluene in the presence of heptanoic acid, followed by hydrolysis using indion 525 resin.

L10 ANSWER 3 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:13869 CAPLUS
DOCUMENT NUMBER: 144:108142
TITLE: Chemoselective catalytic oxidative processes to produce aldehyde group-containing intermediates for rosuvastatin preparation
INVENTOR(S): Gudipati, Srinivasulu; Katkam, Srinivas; Sagyam, Rajeshwar Reddy; Kudavalli, Jaya Satyanaraya
PATENT ASSIGNEE(S): India
SOURCE: U.S. Pat. Appl. Publ., 4 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2006004200	A1	20060105	US 2005-157552		20050621
PRIORITY APPLN. INFO.:			US 2004-581480P	P	20040621

OTHER SOURCE(S): CASREACT 144:108142
IT 124655-09-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(chemoselective catalytic oxidative processes to produce aldehyde group-containing intermediates for rosuvastatin preparation
)
RN 124655-09-0 CAPLUS
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB Intermediate compds. [e.g., tert-Bu 2-[(4R,6S)-6-formyl-2,2-dimethyl-1,3-dioxan-4-yl]acetate] for preparing rosuvastatin are prepd. by a process comprising chemoselectively oxidizing hydroxymethyl groups [e.g., tert-Bu (4R-cis)-6-(hydroxymethyl)-2,2-dimethyl-1,3-dioxane-4-acetate] into aldehyde groups using sodium hypochlorite as the oxidant and 2,2,6,6-tetramethylpiperidinyloxy free radical as a catalyst.

L10 ANSWER 11 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:965237 CAPLUS
DOCUMENT NUMBER: 141:410757
TITLE: Process for the preparation of (4-hydroxy-6-oxo-tetrahydropyran-2-yl)acetonitrile and derivatives thereof
INVENTOR(S): Mink, Daniel; Wolberg, Michael; Boesten, Wilhelmus Hubertus Joseph; Sereinig, Natascha
PATENT ASSIGNEE(S): DSM IP Assets B.V., Neth.
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096788	A1	20041111	WO 2004-NL284	20040428
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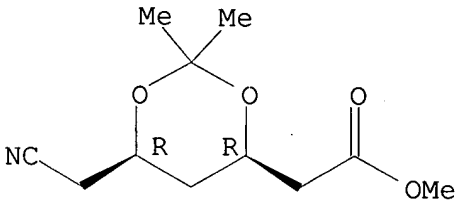
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004234308	A1	20041111	AU 2004-234308	20040428
CA 2524457	AA	20041111	CA 2004-2524457	20040428
EP 1620423	A1	20060201	EP 2004-730128	20040428
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004009866	A	20060516	BR 2004-9866	20040428
CN 1780826	A	20060531	CN 2004-80011792	20040428
NO 2005005694	A	20060202	NO 2005-5694	20051201
PRIORITY APPLN. INFO.:			EP 2003-101227 A	20030502
			WO 2004-NL284 W	20040428

OTHER SOURCE(S): CASREACT 141:410757; MARPAT 141:410757
IT 714963-28-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and saponification of; preparation of (4-hydroxy-6-oxotetrahydropyran-2-yl)acetonitrile and derivs. thereof)

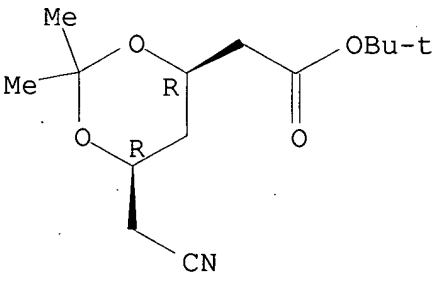
RN 714963-28-7 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, methyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 125971-94-0P 791115-50-9P, [6-(Cyanomethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid methyl ester 791115-51-0P, [6-(Cyanomethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid ethyl ester 791115-53-2P, [6-(Cyanomethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid isopropyl ester 791115-54-3P, [6-(Cyanomethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid propyl ester 791115-55-4P, [6-(2-Aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid methyl ester 791115-56-5P, [6-(2-Aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid ethyl ester 791115-57-6P, [6-(2-Aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid isopropyl ester 791115-58-7P, [6-(2-Aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetic acid propyl ester
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of (4-hydroxy-6-oxotetrahydropyran-2-yl)acetonitrile and derivs. thereof)
RN 125971-94-0 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 791115-50-9 CAPLUS
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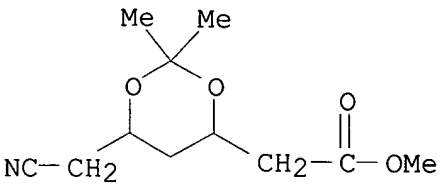
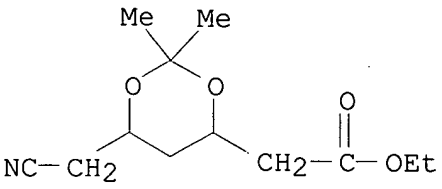
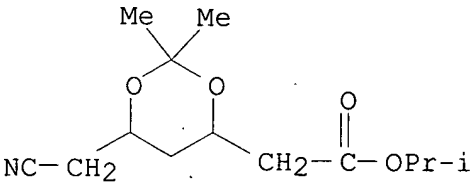


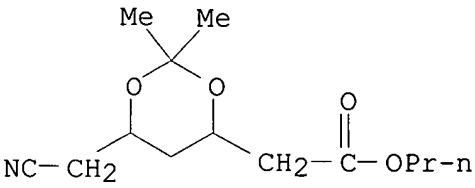
RN 791115-51-0 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, ethyl ester (9CI) (CA INDEX NAME)



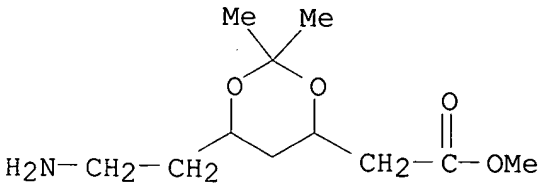
RN 791115-53-2 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)



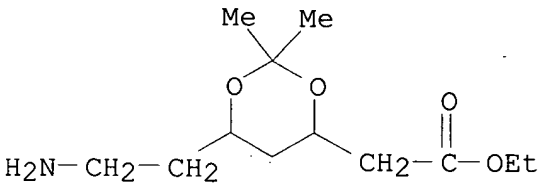
RN 791115-54-3 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, propyl ester (9CI) (CA INDEX NAME)



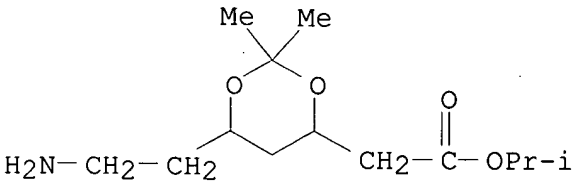
RN 791115-55-4 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, methyl ester (9CI) (CA INDEX NAME)



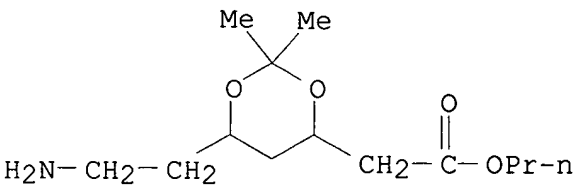
RN 791115-56-5 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, ethyl ester (9CI) (CA INDEX NAME)



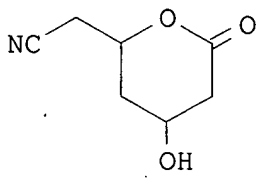
RN 791115-57-6 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 791115-58-7 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, propyl ester (9CI) (CA INDEX NAME)



GI



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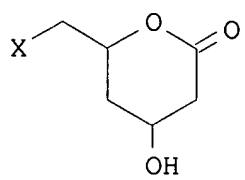
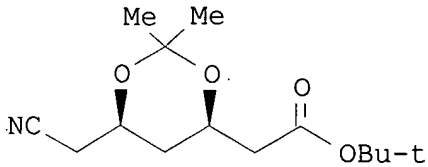
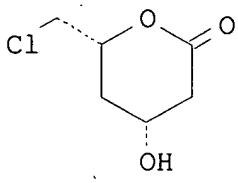


II



III



IV

AB The invention relates to a process for the preparation of (4-hydroxy-6-oxotetrahydropyran-2-yl)acetonitrile (I) from 6-X-substituted-methyl-4-hydroxytetrahydro-pyran-2-one II [X = leaving group], by reacting 6-X-substituted-methyl-4-hydroxy-tetrahydro-pyran-2-one with a cyanide ion (-CN) in water and by subsequent lowering of the pH to a pH between 0 and 5. (4-hydroxy-6-oxo-tetrahydro-pyran-2-yl)acetonitrile and other compds. obtainable from (4-hydroxy-6-oxo-tetrahydro-pyran-2-yl)acetonitrile may suitably be used in the preparation of a pharmaceutical preparation, more in particular in the preparation of statins, more in particular in the prepn . of Atorvastatine or a salt thereof, for instance its calcium salt. The invention also relates to (4-hydroxy-6-oxo-tetrahydro-pyran-2-yl)acetonitrile and other compds. obtainable there from, such as atorvastatin. Thus,.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 12 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:95663 CAPLUS
DOCUMENT NUMBER: 140:146148
TITLE: Improved preparation of optically active 6-sulfonyloxymethyl-1,3-dioxane-4-ylacetates as intermediates for HMG CoA reductase inhibitors
INVENTOR(S): Kishimoto, Shigeki; Nishiyama, Akira; Nagashima, Nobuo; Inoue, Kenji

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004035514	A2	20040205	JP 2002-198020	20020705
WO 2004011420	A1	20040205	WO 2003-JP8572	20030707

W: CA, IN, US
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR

PRIORITY APPLN. INFO.: JP 2002-198020 A 20020705

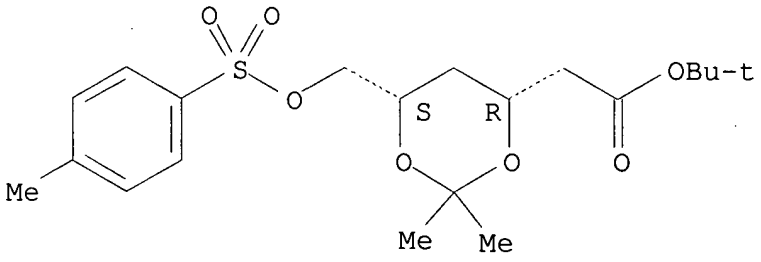
OTHER SOURCE(S): MARPAT 140:146148

IT 136006-37-6P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(optically active; preparation of optically active (sulfonyloxymethyl)dioxanylacetates as intermediates for HMG CoA reductase inhibitors)

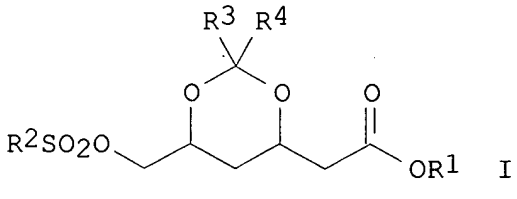
RN 136006-37-6 CAPLUS

CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI



AB Optically active title compds. I [R1, R2 = (un)substituted C1-12 alkyl, (un)substituted C6-12 aryl, (un)substituted C7-12 aralkyl; R3, R4 = H, C1-12 alkyl, C6-12 aryl, C7-12 aralkyl; R3R4 may form ring] are prepared by sulfonylation of optically active HOCH2CH(OH)CH2COCH2CO2R1 (R1 = same as above) in the presence of bases, stereoselective reduction of the resulting optically active R2SO3CH2CH(OH)CH2COCH2CO2R1 (R1, R2 = same as above), and acetalization in the presence of acid catalysts. Thus, tert-Bu (5S)-5,6-dihydroxy-3-oxohexanoate was tosylated and hydrogenated with NaBH4 in the presence of Et2BOMe to give tert-Bu (3R,5S)-3,5-dihydroxy-6-[(p-methylphenyl)sulfonyloxy]hexanoate. Cyclization of the product in the presence of pyridinium p-toluenesulfonate gave the corresponding dioxane derivative

L10 ANSWER 13 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1009717 CAPLUS
DOCUMENT NUMBER: 141:425576
TITLE: Asymmetric hydrogenation catalyst
INVENTOR(S): Proctor, Lee David; Warr, Antony John; Lathom, Elliot James
PATENT ASSIGNEE(S): Phoenix Chemicals Limited, UK
SOURCE: Brit. UK Pat. Appl., 18 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2401864	A1	20041124	GB 2003-11658	20030521
AU 2004241183	A1	20041202	AU 2004-241183	20040426
CA 2526497	AA	20041202	CA 2004-2526497	20040426
WO 2004103560	A1	20041202	WO 2004-GB1755	20040426
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1628762	A1	20060301	EP 2004-729454	20040426

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.: GB 2003-11658 A 20030521

WO 2004-GB1755 W 20040426

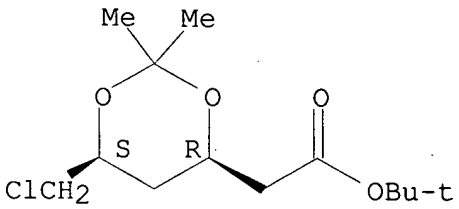
OTHER SOURCE(S): CASREACT 141:425576

IT 154026-94-5P
RL: IMF (Industrial manufacture); PREP (Preparation)
(asym. hydrogenation catalyst)

RN 154026-94-5 CAPLUS

CN 1,3-Dioxane-4-acetic acid, 6-(chloromethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



AB The present invention concerns a catalytic composition comprising a catalyst effective for catalyzing asym. hydrogenation reactions, which catalyst requires acid activation, an acidic material effective for activating the catalyst, and a buffering compound or composition capable of forming, in the presence of the acidic material, an acetal, a ketal, a hemiacetal, and/or a hemiketal. The invention also relates to an asym. hydrogenation process utilizing such a catalytic composition, and to the use of such a catalytic composition for improving the enantiomeric excess of a desired asym. hydrogenated product.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 14 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:356390 CAPLUS

DOCUMENT NUMBER: 141:88974

TITLE: Development of an efficient, scalable, aldolase-catalyzed process for enantioselective synthesis of statin intermediates

AUTHOR(S): Greenberg, William A.; Varvak, Alexander; Hanson, Sarah R.; Wong, Kelvin; Huang, Hongjun; Chen, Pei; Burk, Mark J.

CORPORATE SOURCE: Diversa Corporation, San Diego, CA, 92121, USA

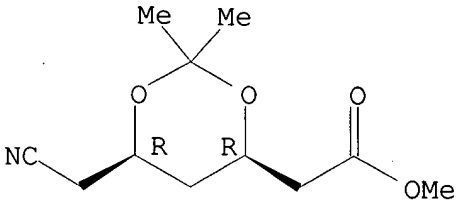
SOURCE: Proceedings of the National Academy of Sciences of the
United States of America (2004), 101(16), 5788-5793
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:88974

IT 714963-28-7P
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(development of efficient scalable aldolase-catalyzed process for enantioselective synthesis of statin intermediates)

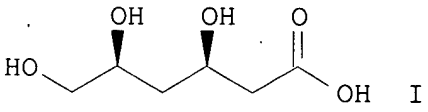
RN 714963-28-7 CAPLUS

CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, methyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI



I

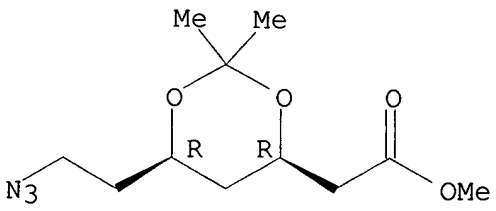
AB A process is reported for efficient, enantioselective production of key intermediates, e.g. hexanoic acid I, for the common chiral side chain of statin-type cholesterol-lowering drugs such as Lipitor (atorvastatin) and Crestor (rosuvastatin). The process features a one-pot tandem aldol reaction catalyzed by a deoxyribose-5-phosphate aldolase (DERA) to form a 6-carbon intermediate with installation of two stereogenic centers from 2-carbon starting materials. An improvement of almost 400-fold in volumetric productivity relative to the published enzymic reaction conditions has been achieved, resulting in a com. attractive process that has been run on up to a 100-g scale in a single batch at a rate of 30.6 g/L per h. Catalyst load has been improved by 10-fold as well, from 20 to 2.0 wt % DERA. These improvements were achieved by a combination of discovery from

environmental DNA of DERAs with improved activity and reaction optimization to overcome substrate inhibition. The two stereogenic centers are set by DERA with enantiomeric excess at >99.9% and diastereomeric excess at 96.6%. In addition, down-stream chemical steps have been developed to convert the enzymic product efficiently to versatile intermediates applicable to preparation of atorvastatin and rosuvastatin.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

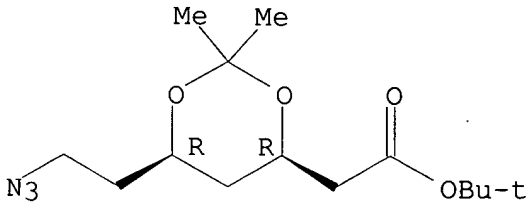
L10 ANSWER 15 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:153542 CAPLUS
DOCUMENT NUMBER: 140:357089
TITLE: Sequential aldol condensation catalyzed by DERA mutant Ser238Asp and a formal total synthesis of atorvastatin
AUTHOR(S): Liu, Junjie; Hsu, Che-Chang; Wong, Chi-Huey
CORPORATE SOURCE: Department of Chemistry and the Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Tetrahedron Letters (2004), 45(11), 2439-2441
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:357089
IT 682356-86-1P 682356-88-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of atorvastatin)
RN 682356-86-1 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-azidoethyl)-2,2-dimethyl-, methyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



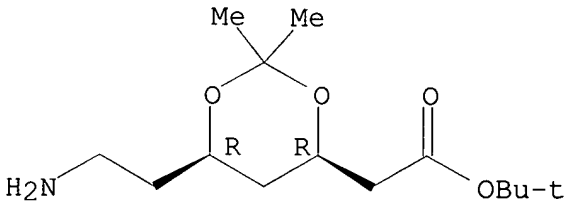
RN 682356-88-3 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-azidoethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



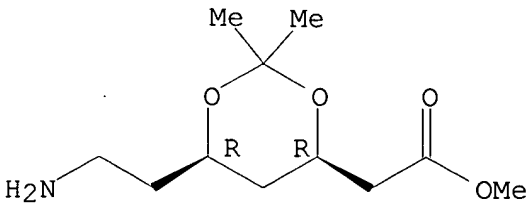
IT 125995-13-3P 676260-66-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of atorvastatin)
RN 125995-13-3 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 676260-66-5 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, methyl ester,
(4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

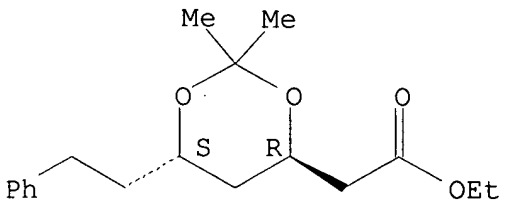


AB A mutant d-2-deoxyribose-5-phosphate aldolase (DERA), Ser238Asp, was used

to prepare β-hydroxy-δ-lactol synthons and a key intermediate for atorvastatin synthesis.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 16 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:288770 CAPLUS
DOCUMENT NUMBER: 141:6961
TITLE: Strategy for enantio- and diastereoselective syntheses of all possible stereoisomers of 1,3-polyol arrays based on a highly catalyst -controlled epoxidation of α,β-unsaturated morpholinyl amides: application to natural product synthesis
AUTHOR(S): Tosaki, Shin-ya; Horiuchi, Yoshihiro; Nemoto, Tetsuhiro; Ohshima, Takashi; Shibasaki, Masakatsu
CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, 113-0033, Japan
SOURCE: Chemistry--A European Journal (2004), 10(6), 1527-1544
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:6961
IT 502690-42-8P 502690-43-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(asym. and diastereoselective syntheses of all stereoisomers of 1,3-polyols via Sm-(S)-BINOL-Ph3AsO-catalyzed epoxidn. of morpholinyl amides and application to natural product synthesis)
RN 502690-42-8 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 2,2-dimethyl-6-(2-phenylethyl)-, ethyl ester,
(4R,6S)- (9CI) (CA INDEX NAME)

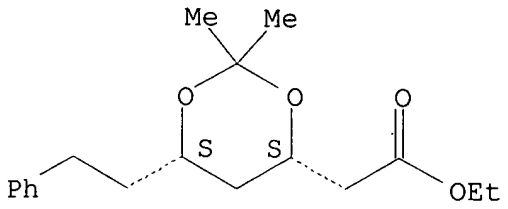
Absolute stereochemistry. Rotation (+).



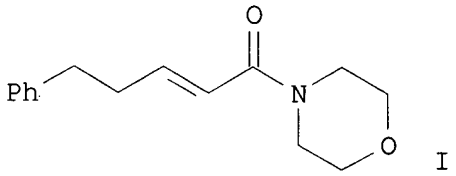
RN 502690-43-9 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 2,2-dimethyl-6-(2-phenylethyl)-, ethyl ester,

(4S,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



GI



I

AB We describe a new strategy for enantio- and diastereoselective syntheses of all possible stereoisomers of 1,3-polyol arrays. This strategy relies on a highly catalyst-controlled epoxidn. of α,β-unsatd. morpholinyl amides, e.g. I, promoted by the Sm-BINOL-Ph3As=O (1:1:1) complex, followed by a conversion of morpholinyl amides into ketones and diastereoselective ketone reduction Highly enantio- (up to >99% ee) or diastereoselective (up to >99.5:0.5) epoxidn. was achieved using 5-10 mol% of the Sm complex to afford synthetically very useful, nearly optically pure α,β-epoxy morpholinyl amides. Stereoselectivity of the epoxidn. was controlled by the chirality of BINOL with overwhelming inherent diastereofacial preference for the substrate. Combination with the syn- and anti-selective ketone reduction with the highly catalyst-controlled epoxidn. allowed for an iterative strategy for the syntheses of all possible stereoisomers of 1,3-polyol arrays. Eight possible stereoisomers of 1,3,5,7-tetraol arrays were synthesized with high to excellent stereoselectivity. Moreover, the efficiency of the present strategy was successfully demonstrated by enantioselective syntheses of several 1,3-polyol/α-pyrone natural products, for example, cryptocaryolone diacetate.

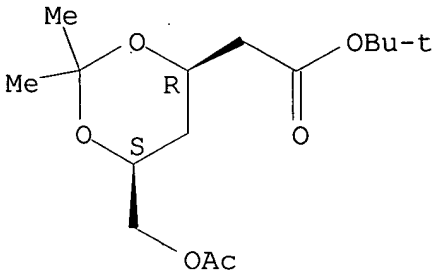
REFERENCE COUNT: 129 THERE ARE 129 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 17 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:511315 CAPLUS
DOCUMENT NUMBER: 139:85359
TITLE: Process for the preparation of optically active 2-[6-(substituted alkyl)-1,3-dioxan-4-yl]acetates from chiral epoxybutanoates and vinylmagnesium bromide or chloride.
INVENTOR(S): Lee, Inhee; Lee, Seungjoo
PATENT ASSIGNEE(S): Choongwae Pharma Corporation, S. Korea
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003053950	A1	20030703	WO 2002-KR1540	20020813
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2003050940	A	20030625	KR 2001-81659	20011220
AU 2002325570	A1	20030709	AU 2002-325570	20020813
JP 2005519045	T2	20050630	JP 2003-554666	20020813
US 2005148784	A1	20050707	US 2003-500023	20020813
PRIORITY APPLN. INFO.:			KR 2001-81659 A	20011220
			WO 2002-KR1540 W	20020813

OTHER SOURCE(S): CASREACT 139:85359; MARPAT 139:85359
IT 154026-95-6P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of optically active dioxanacetates from chiral epoxybutanoates and vinylmagnesium bromide or chloride)
RN 154026-95-6 CAPLUS
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

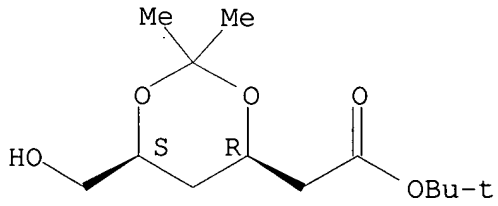


IT 124655-09-0P 125971-94-0P 125995-13-3P,
(4R-cis)-1,1-Dimethylethyl 6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxane-4-acetate
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of optically active dioxanacetates from chiral epoxybutanoates and vinylmagnesium bromide or chloride)

RN 124655-09-0 CAPLUS

CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

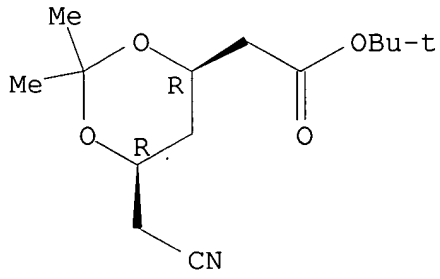
Absolute stereochemistry.



RN 125971-94-0 CAPLUS

CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

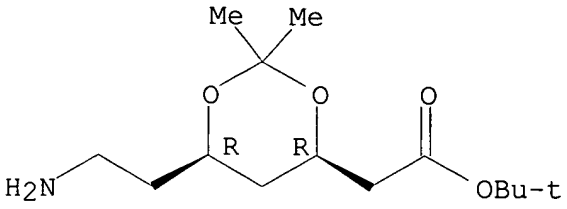


RN 125995-13-3 CAPLUS

CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-,

1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



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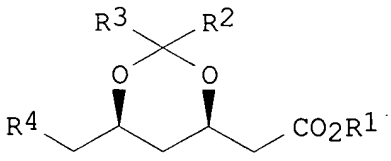

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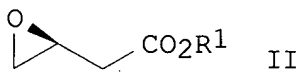

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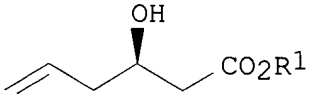

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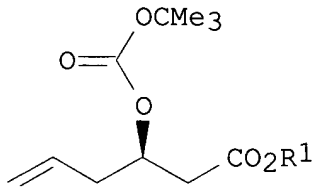

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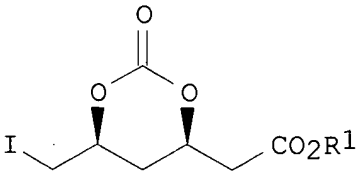

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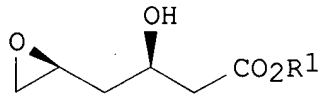

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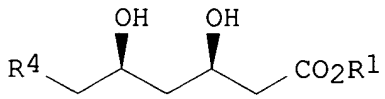


VII

AB Title compds. [I; R1 = H, alkyl, aryl, alkylaryl; R2, R3 = alkyl, Ph; R2R3
= atoms to form a 6-membered ring; R4 = OH, amino, alkylamino, N3, cyano,
halo, aryloxy, alkoxy, arylalkyloxy, alkyl, alkenyl, aryl, aminomethyl,
etc.], were prepared via (a) reacting an epoxide (II) with

vinylmagnesium bromide/chloride to produce a 3-hydroxy compound (III); (b) protecting the OH group by reaction with a dialkyl dicarbonate such as di-tert-Bu dicarbonate to produce (IV); (c) cyclization of IV by a iodolactone-forming reaction to produce (V); (d) treating V with a weak base such as K2CO3 or Na2CO3 to produce (VI); (e) producing a 1,3-diol compound of formula (VII) by a ring opening reaction of VI with nucleophiles in the presence of a metal catalyst and a phase transfer catalyst; (f) treating VII with an acetylating agent or a ketalizing agent in the presence of an acid catalyst and if necessary, exchanging the R4 group (all variables as above).

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 18 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2003:42238 CAPLUS
DOCUMENT NUMBER: 138:106243
TITLE: Process for the preparation of nitrile compounds by cyanation of optionally protected dihydroxy alkanesulfonates in the presence of phase transfer catalysts, and its application to the preparation of an atorvastatin intermediate.
INVENTOR(S): Blacker, Andrew John; Houson, Ian Nicholas; Wiffen, Jonathan William
PATENT ASSIGNEE(S): Avecia Limited, UK
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004459	A2	20030116	WO 2002-GB2964	20020627
WO 2003004459	A3	20030501		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2452683	AA	20030116	CA 2002-2452683	20020627

EP 1404646	A2	20040407	EP 2002-740915		20020627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
CN 1522242	A	20040818	CN 2002-813106		20020627
JP 2004533483	T2	20041104	JP 2003-510427		20020627
US 2004254391	A1	20041216	US 2004-482381		20040719
PRIORITY APPLN. INFO.:			GB 2001-16212	A	20010703
			WO 2002-GB2964	W	20020627

OTHER SOURCE(S): CASREACT 138:106243; MARPAT 138:106243

IT 135054-68-1P, (6S-Methanesulfonyloxymethyl-2,2-dimethyl-[1,3]dioxan-4R-yl)-acetic acid tert-butyl ester 477873-79-3P, (6S-Trifluoromethanesulfonyloxymethyl-2,2-dimethyl-[1,3]dioxan-4R-yl)acetic acid tert-butyl ester 485817-64-9P,

(6S-Fluoromethanesulfonyloxymethyl-2,2-dimethyl-[1,3]dioxan-4R-yl)acetic acid tert-butyl ester 485817-65-0P, (6S-Difluoromethanesulfonyloxymethyl-2,2-dimethyl-[1,3]dioxan-4R-yl)acetic acid tert-butyl ester

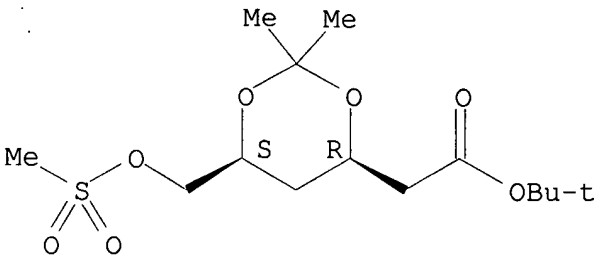
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(process intermediate; improved preparation of nitriles by mesylation of alcs. and cyanation of mesylates using phase transfer catalysts for preparation of key atorvastatin intermediate)

RN 135054-68-1 CAPLUS

CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, methanesulfonate (9CI) (CA INDEX NAME)

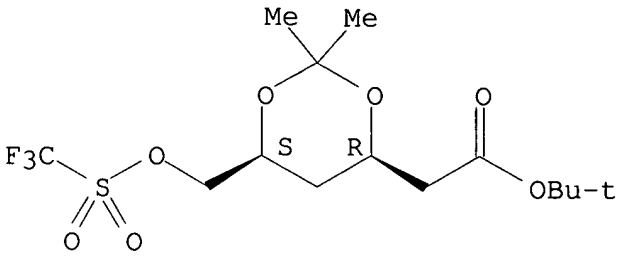
Absolute stereochemistry.



RN 477873-79-3 CAPLUS

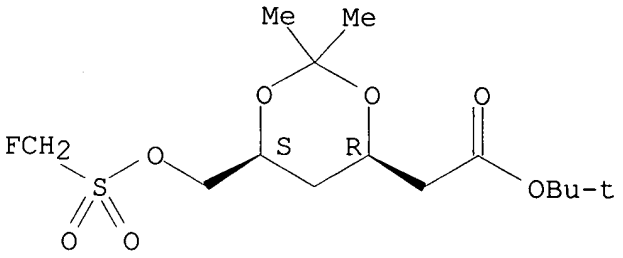
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, trifluoromethanesulfonate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



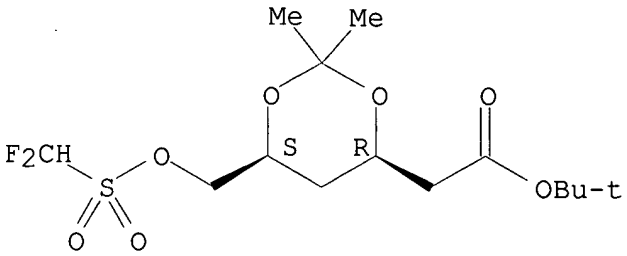
RN 485817-64-9 CAPLUS
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, fluoromethanesulfonate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 485817-65-0 CAPLUS
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, difluoromethanesulfonate (9CI) (CA INDEX NAME)

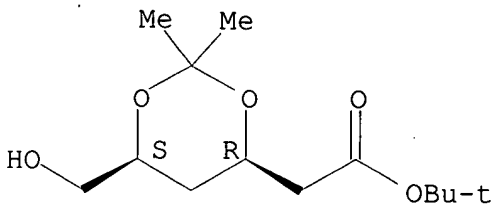
Absolute stereochemistry.



IT 124655-09-0, (6S-Hydroxymethyl-2,2-dimethyl-[1,3]dioxan-4R-yl)acetic acid tert-butyl ester
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; improved preparation of nitriles by mesylation of alcs. and cyanation of mesylates using phase transfer catalysts for preparation of key atorvastatin intermediate)
RN 124655-09-0 CAPLUS

CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

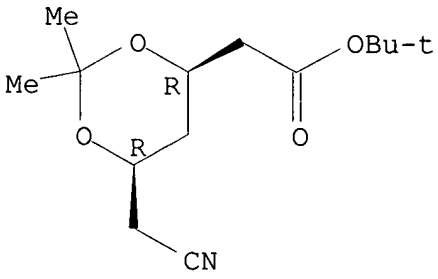


IT 125971-94-0P, (6R-Cyanomethyl-2,2-dimethyl-[1,3]dioxan-4R-yl)-acetic acid tert-butyl ester
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(target intermediate; improved preparation of nitriles by mesylation of alcs. and cyanation of mesylates using phase transfer catalysts for preparation of key atorvastatin intermediate)

RN 125971-94-0 CAPLUS

CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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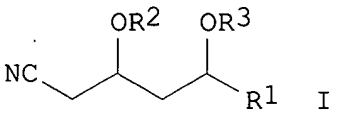

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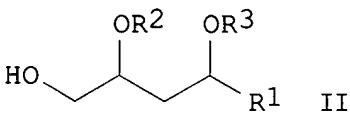

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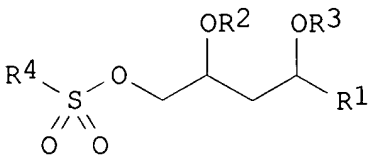

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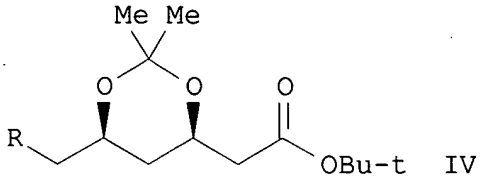


IV

AB A process is provided for the preparation of a nitrile I by (a) reaction of an alc. II, in a solvent and in the presence of a base, with a sulfonylating agent R4SO2X, to give an alkanesulfonate III, and (b) reaction of the latter with a cyanide source in the presence of a phase-transfer catalyst [wherein: R1 = H, optionally substituted acyl, alkyl, aryl, or heteroaryl; R2, R3 = H, hydroxy protecting group; R4 = optionally substituted alkyl, aryl, or heteroaryl; X = halogen]. The process is particularly applicable to the preparation of the well-known hypolipidemic and hypocholesterolemic agent atorvastatin. Previous processes for cyanation of similar sulfonate esters containing a 1,3-dioxane ring are extremely slow and potentially involve unstable intermediates, both of which are potentially limiting to com. application. For example, the alc. IV [R = OH] was treated with MeSO2Cl and Et3N in PhMe at 22±6° and stirred for 1 h to give 92-95% IV [R = OSO2Me]. This mesylate reacted with KCN in an aqueous slurry in the presence of dicyclohexano-18-crown-6 (phase-transfer catalyst) at 35-80° until complete (24 h, 80% reaction yield by GLC). Extraction into PhMe, filtration through Fuller's earth to decolorize the product and remove catalyst, evaporation, and recrystn. from hexane, gave crystalline IV [R = cyano] in 60% yield. A similar invention run in a borate buffer took over 65 h and gave a slightly lower yield. In contrast, a comparison cyanation using NaCN in DMSO at 45° for 192 h gave powdered I [R = cyano] after recrystn. in only 51% isolated yield.

L10 ANSWER 19 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2003:509915 CAPLUS
DOCUMENT NUMBER: 139:69272
TITLE: Esterification process using phase-transfer

phosphium compound catalysts for the preparation of 2-(6-substituted-1,3-dioxane-4-yl) acetic acid derivatives

INVENTOR(S): Hof, Robert Patrick
PATENT ASSIGNEE(S): DSM N.V., Neth.
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

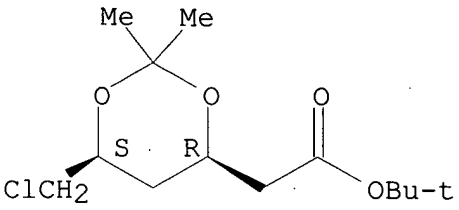
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1323717	A1	20030702	EP 2001-794	20011227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2470647	AA	20030724	CA 2002-2470647	20021209
WO 2003059901	A1	20030724	WO 2002-NL876	20021209
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002359093	A1	20030730	AU 2002-359093	20021209
EP 1461331	A1	20040929	EP 2002-793596	20021209
EP 1461331	B1	20060308		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002015310	A	20041221	BR 2002-15310	20021209
CN 1608058	A	20050420	CN 2002-826201	20021209
US 2005090674	A1	20050428	US 2003-501250	20021209
JP 2005519898	T2	20050707	JP 2003-560004	20021209
NZ 533445	A	20060224	NZ 2002-533445	20021209
AT 319701	E	20060315	AT 2002-793596	20021209
ZA 2004004482	A	20050926	ZA 2004-4482	20040607
NO 2004003159	A	20040723	NO 2004-3159	20040723

PRIORITY APPLN. INFO.:	EP 2001-794	A	20011227
	WO 2002-NL876	W	20021209

OTHER SOURCE(S): CASREACT 139:69272; MARPAT 139:69272
IT 154026-94-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification process using phase-transfer phosphium compound catalysts for the preparation of 2-(6-substituted-1,3-dioxane-4-yl) acetic acid derivs.)

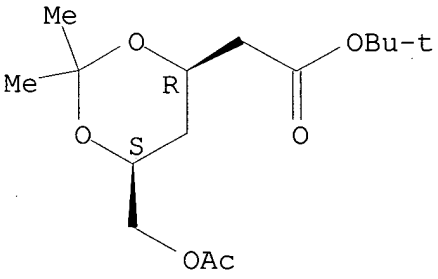
RN 154026-94-5 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(chloromethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 154026-95-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(esterification process using phase-transfer phosphium compound catalysts for the preparation of 2-(6-substituted-1,3-dioxane-4-yl) acetic acid derivs.)
RN 154026-95-6 CAPLUS
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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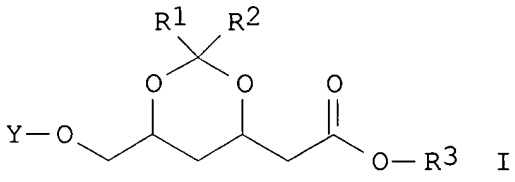
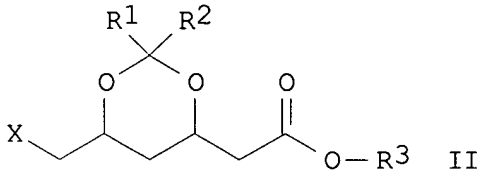


I



II

AB 2-(6-Substituted-1,3-dioxane-4-yl) acetic acid derivs. [I; R1-R3 = C1-4 alkyl; R1R2 = 5- or 6-member cycloalkyl ring; Y = R4CO, R5SO2; R4, R5 = alkyl, aryl; e.g., tert-Bu 2-[(4R,6S)-2,2-dimethyl-6-[(methylcarbonyloxy)methyl]-1,3-dioxan-4-yl]acetate] are prepared in high yield and selectivity by the reaction of an oxylation agent (OY)nM (M = Group IA metal, Group IIA metal; n = 1, 2; e.g., potassium acetate) with the corresponding halogen-containing substrate [II; X = halogen; e.g., tert-Bu 2-[(4R,6S)-6-(chloromethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetate] in the presence of a phosphonium salt phase-transfer catalyst (e.g., tetrabutylphosphonium bromide).
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

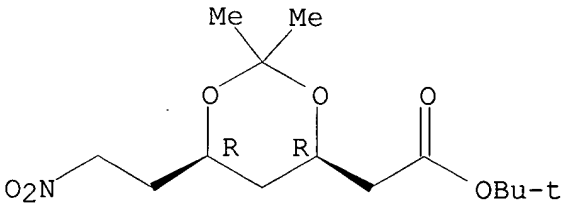
L10 ANSWER 22 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:625703 CAPLUS
DOCUMENT NUMBER: 143:78192
TITLE: Process for preparing tert-butyl (4R,6R)-[6-(2-aminoethyl)-2,2-dimethyl[1,3]dioxan-4-yl]acetate and intermediates for its preparation
INVENTOR(S): Radl, Stanislav
PATENT ASSIGNEE(S): Leciva, A. S., Czech Rep.

SOURCE: Czech Rep., 10 pp.
CODEN: CZXXED
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CZ 292221	B6	20030813	CZ 2001-2431	20010629
PRIORITY APPLN. INFO.:			CZ 2001-2431	20010629

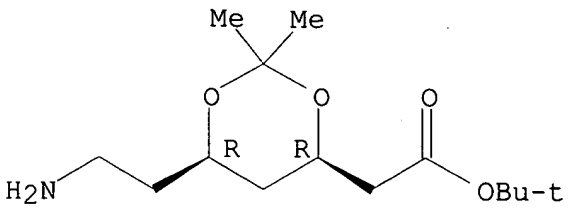
IT 619261-21-1P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for preparing tert-Bu (4R,6R)-[6-(2-aminoethyl)-2,2-dimethyl[1,3]dioxan-4-yl]acetate and intermediates for its preparation)
RN 619261-21-1 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 2,2-dimethyl-6-(2-nitroethyl)-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 125995-13-3P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for preparing tert-Bu (4R,6R)-[6-(2-aminoethyl)-2,2-dimethyl[1,3]dioxan-4-yl]acetate and intermediates for its preparation)
RN 125995-13-3 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(2-aminoethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention relates to a process for preparing tert-Bu (4R,6R)-[6-(2-aminoethyl)-2,2-dimethyl[1,3]dioxan-4-yl]acetate (I), an intermediate for synthesis of atorvastatin, which comprises (a) reacting tert-Bu (4R,6S)-(6-formyl-2,2-dimethyl[1,3]dioxan-4-yl)acetate (II) with nitromethane in a suitable solvent, preferably in a lower alc., under catalysis, preferably KF, (b) reacting tert-Bu [6-(1-hydroxy-2-nitroethyl)-2,2-dimethyl[1,3]dioxan-4-yl]acetate (III) with an carboxylic acid anhydride, (c) reducing the obtained tert-Bu [6-(1-acyloxy-2-nitroethyl)-2,2-dimethyl[1,3]dioxan-4-yl]acetate IV [R = alkyl] with NaBH4 in a suitable medium, such as aqueous medium, water-alc. medium or alc. medium, and (d) subjecting the obtained tert-Bu [2,2-dimethyl-6-(2-nitroethyl)[1,3]dioxan-4-yl]acetate (V) to hydrogenation under catalysts such as Raney nickel, palladium, or platinum in suitable solvents such as lower alcs., to obtain (4R,6R)-I.

L10 ANSWER 24 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:72081 CAPLUS
DOCUMENT NUMBER: 136:118454
TITLE: Preparation of 2-(6-substituted-1,3-dioxane-4-yl)acetates
INVENTOR(S): Kooistra, Jacob Hermanus Mattheus Hero; Zeegers, Hubertus Josephus Marie; Mink, Daniel; Mulders, Joannes Maria Cornelis Antonius
PATENT ASSIGNEE(S): DSM N.V., Neth.
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002006266	A1	20020124	WO 2001-NL535	20010712
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
NL 1015744	C2	20020122	NL 2000-1015744	20000719
CA 2415963	AA	20020124	CA 2001-2415963	20010712
AU 2001075830	A5	20020130	AU 2001-75830	20010712
EP 1317440	A1	20030611	EP 2001-953373	20010712
EP 1317440	B1	20060927		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001012535	A	20030701	BR 2001-12535	20010712
JP 2004504315	T2	20040212	JP 2002-512170	20010712
NZ 523703	A	20040827	NZ 2001-523703	20010712
EE 200300024	A	20041015	EE 2003-24	20010712
CN 1680363	A	20051012	CN 2005-10065744	20010712
RU 2266903	C2	20051227	RU 2003-104825	20010712
EP 1700854	A1	20060913	EP 2006-10837	20010712
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
NO 2003000025	A	20030103	NO 2003-25	20030103
US 2003158426	A1	20030821	US 2003-333351	20030117
US 6870059	B2	20050322		
ZA 2003000478	A	20040126	ZA 2003-478	20030117
US 2005148785	A1	20050707	US 2005-53090	20050207
AU 2006203127	A1	20060810	AU 2006-203127	20060721

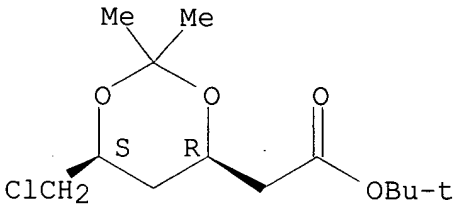
PRIORITY APPLN. INFO.:	NL 2000-1015744	A	20000719
	AU 2001-75830	A3	20010712
	CN 2001-812999	A3	20010712
	EP 2001-953373	A3	20010712
	WO 2001-NL535	W	20010712
	US 2003-333351	A1	20030117

OTHER SOURCE(S): CASREACT 136:118454; MARPAT 136:118454

IT 154026-94-5P 154026-95-6P 391218-16-9P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

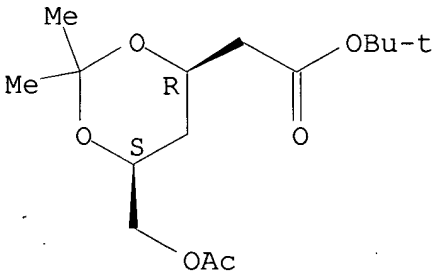
(preparation of 2-(6-substituted-1,3-dioxane-4-yl)acetates)
RN 154026-94-5 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(chloromethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



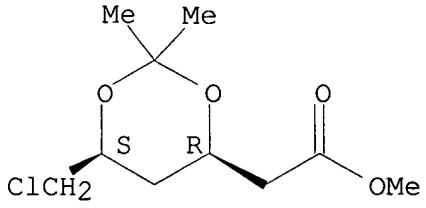
RN 154026-95-6 CAPLUS
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester, acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 391218-16-9 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(chloromethyl)-2,2-dimethyl-, methyl ester,
(4R,6S)- (9CI) (CA INDEX NAME)

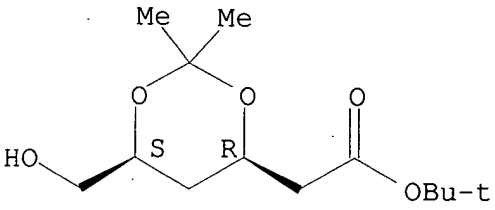
Absolute stereochemistry.



IT 124655-09-0P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of 2-(6-substituted-1,3-dioxane-4-yl)acetates)
RN 124655-09-0 CAPLUS
CN D-erythro-Hexonic acid, 2,4-dideoxy-3,5-O-(1-methylethylidene)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB RCH2CH(OR4)CH2CH(OR5)CH2CO2R3 (R = leaving group; R4R5 = CR1R2; R1-R3 = C1-3 alkyl) were prepared by treating RCH2CH(OR4)CH2CH(OH)CH2CO2R3 (R3R4 = bond) with an acetalization agent and an acid catalyst.
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

2.5 h to give 82% oxydiphthalic acid.

L10 ANSWER 37 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:723026 CAPLUS
DOCUMENT NUMBER: 131:310642
TITLE: Process for producing 6-cyanomethyl-1,3-dioxane-4-acetic acid derivatives
INVENTOR(S): Mitsuda, Masaru; Miyazaki, Makoto; Inoue, Kenji
PATENT ASSIGNEE(S): Kaneka Corp., Japan
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9957109	A1	19991111	WO 1999-JP2272	19990428
W: CA, CN, HU, IN, JP, NO, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2329893	AA	19991111	CA 1999-2329893	19990428
EP 1077212	A1	20010221	EP 1999-917207	19990428
EP 1077212	B1	20030820		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, IE				

ES 2207202	T3	20040516	ES 1999-917207		19990428
US 6344569	B1	20020205	US 2001-674178		20010102
PRIORITY APPLN. INFO.:			JP 1998-121135	A	19980430
			WO 1999-JP2272	W	19990428

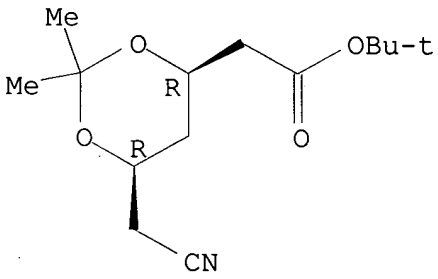
OTHER SOURCE(S): CASREACT 131:310642; MARPAT 131:310642

IT 125971-94-0P 247592-53-6P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 6-cyanomethyl-1,3-dioxane-4-acetic acid derivs. as intermediate for HMG CoA reductase inhibitor atorvastatin)

RN 125971-94-0 CAPLUS

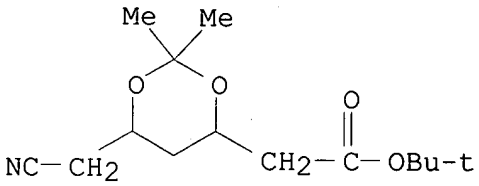
CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 247592-53-6 CAPLUS

CN 1,3-Dioxane-4-acetic acid, 6-(cyanomethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

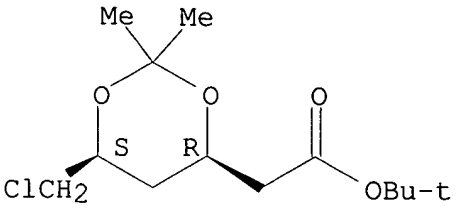


IT 154026-94-5P 247592-52-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of 6-cyanomethyl-1,3-dioxane-4-acetic acid derivs. as intermediate for HMG CoA reductase inhibitor atorvastatin)

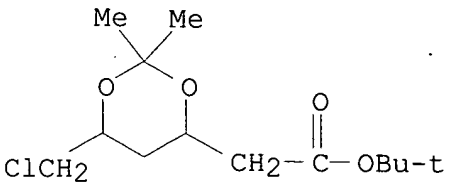
RN 154026-94-5 CAPLUS

CN 1,3-Dioxane-4-acetic acid, 6-(chloromethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R,6S)- (9CI) (CA INDEX NAME)

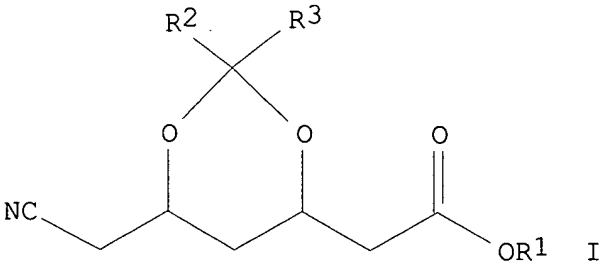
Absolute stereochemistry. Rotation (+).



RN 247592-52-5 CAPLUS
CN 1,3-Dioxane-4-acetic acid, 6-(chloromethyl)-2,2-dimethyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



GI



AB A process whereby 6-cyanomethyl-1,3-dioxane-4-acetic acid derivs. I (R1, R2, R3 = H, alkyl, aryl, aralkyl) which are important intermediates of an HMG CoA reductase inhibitor atorvastatin, can be industrially, easily and efficiently produced. This process comprises starting with a 3,5-dihydroxy-6-halohexane derivative, treating it with a cyanation agent to thereby substitute the halogen atom with the cyano group and forming an acetal of a diol by using an acetal-forming agent in the presence of an acid catalyst. Thus, 1,1-dimethylethyl (4R,6S)-6-chloromethyl-2,2-dimethyl-1,3-dioxane-4-acetate was prepared in 2 steps from 1,1-dimethylethyl (3R,5S)-6-chloro-3,5-dihydroxyhexanoate.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	358.82	556.29
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-67.50	-67.50

STN INTERNATIONAL LOGOFF AT 12:57:38 ON 08 OCT 2006